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ALSTON & BIRD LLP BANK OF AMERICA PLAZA 101 SOUTH TRYON STREET, SUITE 4000 CHARLOTTE, NC 28280-4000			MOONEYHAM, JANICE A	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JEROME CHEN,
ROBERT JAY GABANNY,
and NARENDRA GOYAL

Appeal No. 2007-1456
Application No. 09/834,156
Technology Center 3600

Decided: February 29, 2008

Before MURRIEL E. CRAWFORD, HUBERT C. LORIN and
ANTON W. FETTING, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Chen, et al. (Appellants) seek our review under 35 U.S.C. § 134 (2002) of the final rejection of claims 1, 2, 5-14, 16-25, and 28-43. We have jurisdiction under 35 U.S.C. § 6 (b) (2002).

SUMMARY OF DECISION

We AFFIRM-IN-PART.¹

THE INVENTION

The invention is directed to a travel management system utilizing multiple computer reservation systems (CRS).

Claims 1 and 9 are illustrative of the invention claimed:

1. A method for making travel related bookings, comprising:
 - providing access to a plurality of computer reservation systems (CRSs) for a client
 - initiating a travel booking request;
 - allowing the client to book at least one travel item segment from any one of the accessible CRSs; and
 - generating a travel itinerary booking record including information associated with at least one booked travel item segment and information identifying each CRS for a respective booked travel item segment, wherein at least one of the providing, allowing, and generating steps is performed by a data processing system.
9. The method of claim 8, wherein the predefined selection of the plurality of CRSs includes a default CRS or a primary CRS and at least one secondary CRS.

¹ Our decision will make reference to Appellants' Appeal Brief ("Appeal Br.," filed May 16, 2006), the Examiner's Answer ("Answer," mailed Aug. 2, 2006), and to the Reply Brief ("Reply Br.," filed Sep. 14, 2006).

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Flake	US 5,832,451	Nov. 3, 1998
Jafri	US 5,832,454	Nov. 3, 1998

The following rejections are before us for review:

- Claims 1, 2, 5-8, 12-14, 16-17, 24-25, 28-31 and 41-42 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Flake.
- Claims 9-11, 18-23, 32-40 and 43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Flake and Jafri.

ISSUES

The first issue before us is whether the Appellants have shown that the Examiner erred in rejecting claims 1, 2, 5-8, 12-14, 16-17, 24-25, 28-31 and 41-42 as unpatentable over Flake.

The second issue before us is whether Appellants have shown that the Examiner erred in rejecting claims 9-11, 18-23, 32-40 and 43 as unpatentable over Flake and Jafri.

FINDINGS OF FACT

We find that the following enumerated findings are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

Claim construction

1. “The term CRS [computer reservation system] generally denotes GDSs [global distribution systems] and direct connect CRSs. A GDS is a set of internally networked databases, and the business logic that ties them together, for the primary purpose of managing the sale of airline, car rental, and hotel inventories.” (Specification 1:12-16).
2. With respect to the limitation “generating a travel itinerary booking record including information associated with at least one booked travel item segment and information identifying each CRS for a respective booked travel item segment, wherein at least one of the providing, allowing, and generating steps is performed by a data processing system” in claim 1 (and with respect to similar language in the other independent claims 12, 24, and 41), the phrase “generating a travel itinerary record” involves storing data in a database. (See Specification 25:19) (e.g., Oracle database). It is a database record.
3. The phrase “information associated with at least one booked travel item segment” refers to information about a travel itinerary. (See Specification, 25:6-16): “The air segment data 820 can include the name of the airline 822, the data and time of the flight 824 . . .”
4. Information about a travel itinerary, such as the name of an airline, is non-functional descriptive material.
5. The phrase “information identifying each CRS for a respective booked travel item segment” refers to information about the CRS on whom the

travel booking is made. (See Specification 25:11): “super PNR data related to the CSR 836.”

6. Information about a CRS on whom the travel booking is made, such as its name, is non-functional descriptive material.
7. PNRs are “store[d] individual travel booking records in database records called passenger name records (PNRs). These records store the customer’s personal information and individual reservation summaries for each airline reservation segment, car rental segment, and hotel segment contained in the booking. The summaries include a reference to the actual location of the inventory held by the segment. The segment source can be located in another part of the GDS or externally at another system on the network. The PNR establishes and maintains the relationship of the segments to each other to form a single integrated trip, or booking record. Business logic built into the GDS manages the individual PNR travel item segments to ensure that a booking change to one or more segments results in an update to every segment.” (Specification 11-21).
8. The “allowing” and the “providing” and “allowing” steps of claim 1 do not limit the accessing of each different CRS on the same terminal but rather the claim is broad enough to allow access of each different CRS on respective different terminals.

The scope and content of the prior art

9. The Examiner found that Flake shows all the claimed elements/steps but for generating a travel itinerary booking record including information associated

with at least one booked travel item segment and information identifying each CRS for a respective booked travel item segment. (Answer 4).

10. Flake is directed to an automated travel service management information system.
11. Flake teaches storing information about a travel booking in a database. (See col. 2, ll. 26-29): “travel service information from a plurality of computer reservation systems is stored and readily available in a single database format.”
12. Flake discloses obtaining travel information from different CRSs. (See Fig. 1).
13. The Examiner took official notice that “it is old and well known to document and record information associated with travel items so as to have the information available if the information is needed.” (Answer 4).
14. Recording information, i.e., entering data, into a database is well known in the art.
15. For those claims rejected over Flake and Jafri, Jafri is applied to show a predefined selection of a plurality of CRSs including a default CRS or a primary and secondary CRS, which the Examiner states Flake does not show. (Answer 7-8).
16. Jafri suggests using different CRSs. (See Fig. 2).

The level of skill in the art

17. Neither the Examiner nor Appellants have addressed the level of ordinary skill in the pertinent arts of computer reservation systems. As such, we will therefore consider the cited prior art as representative of the level of ordinary

skill in the art. *See Okajima v. Bourdeau*, 261 F.3d. 1350, 1355 (Fed. Cir. 2001) (“[T]he absence of specific findings on the level of skill in the art does not give rise to reversible error ‘where the prior art itself reflects an appropriate level and a need for testimony is not shown.’”) (Quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163 (Fed. Cir. 1985)).

Secondary considerations

18. There is no evidence on record of secondary considerations of non-obviousness for our consideration.

PRINCIPLES OF LAW

Claim construction

The Patent and Trademark Office (“PTO”) determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction “in light of the specification as it would be interpreted by one of ordinary skill in the art.” *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

Obviousness

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR*

Int'l Co. v. Teleflex Inc., 127 S.Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S.Ct. at 1734 (“While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.”) The Court in *Graham* further noted that evidence of secondary considerations “might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” 383 U.S. at 18.

ANALYSIS

Appellants argued² the claims in accordance with the following groups:

- claims 1, 12, and 24 (Appeal Br. 8-14);
 - claims 2, 5-7, 10-11, 13-14, 16-17, 25, 28-30, 36, 38; and 40 are not separately argued but since they depend on these claims they will be included in this group;
- claim 41 (Appeal Br. 14-16);
 - claims 42-43 are not separately argued but since they depend on these claims they will be included in this group;

² Only those arguments actually made by Appellants have been considered in this decision. Arguments that Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2007).

- claims 8, 19, and 31(Appeal Br. 16-17);
 - claims 21-23 and 33-34 are not separately argued but since they depend on these claims they will be included in this group;
- claims 9, 20, and 32 (Appeal Br. 17);
- claim 18 (Appeal Br. 17-18); and,
- claims 35, 37, and 39 (Appeal Br. 18-19).

I. Claims 1, 2, 5-7, 10-14, 16-17, 24-25, 28-30, 38; and 40

The Appellants group claims 1, 2, 5-7, 10-14, 16-17, 24-25, 28-30, 38; and 40 as a group (see *supra*). We select claim 1 as the representative claim for this group with respect to the rejection over Flake alone and claim 10 with respect to the rejection over Flake and Jafri, and the remaining claims 2, 5-7, 12-14, 16-17, 24-25, and 28-30; and, 11, 36, 38, and 40 stand or fall with claims 1 and 10, respectively. 37 C.F.R. § 41.37(c)(1)(vii) (2007).

a. The § 103 rejection of claims 1, 2, 5-7, 12-14, 16-17, 24-25, and 28-30 over Flake.

The issue is whether Flake discloses the subject matter of the step “generating a travel itinerary booking record including information associated with at least one booked travel item segment and information identifying each CRS for a respective booked travel item segment, wherein at least one of the providing, allowing, and generating steps is performed by a data processing system” in claim 1.

Given the meanings that the Specification gives to the terms in this step of the claim (FF 1-7), the broadest reasonable construction of this step in light of the specification as it would be interpreted by one of ordinary skill in the art is that it encompasses generating a database record to include two pieces of information – i.e., one a travel item (i.e., a flight number) and the other the CRS that provided the travel item (e.g., a name of the CRS). These types of information, which simply describe things, are nonfunctional descriptive material. See *Ex parte Mathias* (BPAI 2005) (<http://www.uspto.gov/web/offices/dcom/bpai/its/fd051851.pdf>).

Since we construe the “information associated with at least one booked travel item segment” and “information identifying each CRS for a respective booked travel item segment” of claim 1 as nonfunctional descriptive material, we agree with the Examiner assessment of this limitation. (See Answer 4).

The Appellants argue that this “information” can not be characterized as non-functional descriptive material because the information “affects how the steps of the claims are performed.” (App. Br. 9). We are not persuaded by this argument. We are unable to see how the steps of the method are affected by the type of information that is stored in the database. Claim 1 does not call for generating a data segment but rather generating information associated with a travel segment. Accordingly, claim 1 covers entering a word or label to describe the travel segment into a database. The Appellants argue that the claimed information is “in sharp contrast to the steps of storing data in which the type of data being stored does not affect how the step is performed, and the data is properly considered non-functional descriptive material.” However, that (data which does not affect how the step is performed) is precisely what the claim

encompasses when it is given the broadest reasonable construction in light of the Specification as it would be interpreted by one of ordinary skill in the art. The information to which the claim refers (e.g., a flight number) is “content of information resident in a database [and not] data structures impos[ing] a physical organization on the data.” *In re Lowry*, 32 F.3d 1579, 1583 (Fed. Cir. 1994).

Notwithstanding that the claimed information is non-functional descriptive material, we also agree with the Examiner it is well known in the art to record information. (FF 13). It is well known to enter data to store it in a database. (FF 14). Evidence that this is well known can be found in Flake which teaches storing travel data in a database. (FF 11). Accordingly, we are not persuaded by the Appellants’ arguments to the contrary. (See App. Br. 13).

The Appellants also argue that Flake teaches away from including “information identifying each CRS for a respective booked travel item segment” (App. Br. 13). We are not persuaded by this argument. Given that Flake teaches storing information about a travel booking in a database, one of ordinary skill in the art would foresee storing any type of information corresponding to the booking. One type of information corresponding to a booking that is well known to those in the travel industry is information about where the booking took place or other information documenting the source.

The Appellants argued that they traversed the Examiner’s finding that it is well known to record information associated with travel items (App. Br. 11). However, the Appellants did not describe why the noticed fact is not considered to be common knowledge or well-known in the art, particularly in light of Flakes’s

reference to related documents (see col. 17, ll. 8-10), which would certainly include a travel itinerary.

b. *The § 103 rejection of claims 10-11, 36, 38, and 40 over Flake in view of Jafri.*

The Appellants' discussion of Jafri is directed only to claims 1, 12 and 24 but these claims were not rejected over Jafri. (App. Br. 14). Nonetheless, the Appellants argue that Jafri "shares similar shortcomings as Flake." (App. Br. 14). Accordingly, for the same reasons we discussed above, we are not persuaded that the Appellants have shown error in the rejection of these claims over Flake and Jafri.

II. Claims 41-43

The Appellant groups claims 41-43 as a group (see *supra*). We select claim 41 as the representative claim for this group with respect to the rejection over Flake alone and the remaining claim 42 stands or falls with claim 41. 37 C.F.R. § 41.37(c)(1)(vii) (2007).

a. *The § 103 rejection of claims 41-42 over Flake.*

The Appellants argue that Flake fails to show generating a booking record that includes information associated with a plurality of booked travel item segments ... associated with different CRSs. (See claim 41). According to Appellants, Flake shows information derived from a single CRS. (App. Br. 14-16).

We are not persuaded by this argument. We agree with the Examiner (Answer 27) that Flake suggests obtaining travel information from different CRSs. In fact, this is clearly shown in Fig. 1. (FF 12).

b. *The § 103 rejection of claim 43 over Flake in view of Jafri.*

The Appellants' discussion of Jafri is directly only to claim 41, which was not rejected over Jafri. (App. Br. 15). Nonetheless, we observe that, like Flake, Jafri (Fig. 2) also suggests using different CRSs. (FF 16).

III. Claims 8, 19, 21-23, 31, and 33-34

The Appellants group claims 8, 19, 21-23, 31, and 33-34 as a group (see *supra*). We select claim 8 as the representative claim for this group with respect to the rejection over Flake alone and claim 19 with respect to the rejection over Flake and Jafri, and the remaining claims 31; and, 19, 21-23, and 33-34 stand or fall with claims 8 and 19, respectively. 37 C.F.R. § 41.37(c)(1)(vii) (2007).

a. *The § 103 rejection of claims 8 and 31 over Flake.*

Claim 8 call for accessing CSRs and involving the reading of a plurality of CRSs while booking, as well as accessing a plurality of CRSs to check availability of travel items.

The Examiner has argued that this is suggested in Flake at Figs. 1, and 7-9, which show accessing CRSs from a single travel agency. (Answer 38)

The Appellants argued that Flake prompts a travel agent to determine whether a vendor should be contacted to complete a transaction and that such

access to vendors is different from the claimed access to CSRs. The Appellants further argue that Flake does not show that the agent accesses the CSR for availability. (App. Br. 16-17).

We are not persuaded by the Appellants' argument for the simple reason that claim 8 does not limit the entity accessing the CRS. Nothing in the claim precludes a vendor from accessing an CRS.

b. *The § 103 rejection of claims 19, 21-23, and 33-34 over Flake in view of Jafri.*

The Appellants' criticize Jafri because it "share[s] similar shortcomings as Flake." (App. Br. 17). Accordingly, for the same reasons we discussed above, we are not persuaded that the Appellants have shown error in the rejection of these claims over Flake and Jafri.

IV. The § 103 rejection of claims 9, 20, and 32 over Flake in view of Jafri.

The Appellants argue claims 9, 20, and 32 as a group (see *supra*). We select claim 9 as the representative claim for this group and the remaining claims 20 and 32 stand or fall with claim 9. 37 C.F.R. § 41.37(c)(1)(vii) (2007).

Claim 9 further limits the predefined selection of CSRs of claim 8 to include a default CSR or a primary and at least one secondary CSR. Claims 20 and 32 are likewise so limiting.

The Examiner argues that

Figure 3 of Jafri discloses segment reservation request. Jafri discloses that the Gateway files include files for establishing links to various CRSs (col. 4, lines 24-25). Connections to a CRS are referred to as

Terminal Addresses or TAs. Looking at Figure 3, TA1 is one CRS, TA2 is another CRS and TA3 is a third CRS. As set forth in Jafri, lines 1, 3, and 4 are selected to flights on United Airlines (UA), Delta Airlines (DL) and TransWorld Airlines(TW), respectively. In order to obtain the best fares, the node thereafter attempts to complete Itinerary 1 on United using TA1, Itinerary 2 on Delta Airlines using TA2, and Itinerary 3 on TransWorld Airline using TA3. Jafri discloses that the foregoing process is repeated for the second segment of the desired trip. *Again three different flights are selected, giving preference in each instance to a flight on the same airline as the first flight selected on a particular TA (col. 5, lines 31-37). Thus, the Examiner asserts that Jafri discloses a predefined selection of CRSs including a default CRS. The default CRS could be the automatic processing of United Airlines first, then Delta (secondary CRS), then TransWorld (third CRS). The default CRS could also be processing the flights automatically giving preference in each instance to a flight on the same airline as the first flight selected as set forth in Jafri (col. 5, lines 31-37).*

(Answer 41). Emphasis added. In other words, the Examiner has construed the claims broadly such that (a) the default CRS can be the primary CRS or (b) “an option that is selected automatically unless some other alternative is specified.” (Answer 40). Given this construction, the Examiner finds that Jafri’s selection scheme, which compares results from a CRS to results from a previous CRS meets the limitation of these claims.

Appellants argue that Jafri’s availability of preferences (e.g., pre-selected seat class) has no correlation to a particular CRS. (App. Br. 17 and Reply Br. 8).

We have reviewed Jafri and the claim and we find we are in agreement with the Examiner that claim 8 is broad and places no limit on which of a plurality of CRSs is to be designated the default CRS. Jafri’s selection scheme necessarily

involves accessing a default CRS against which the results of another CRS are compared. Furthermore, we note that Flake, in describing the background of the invention, (col. 1, ll. 45-64), describes the “sequential method of processing travel requests.” This suggests it was known to access CRSs in a sequence; further suggesting a priority arrangement of CRSs.

Accordingly, we are not persuaded that Appellants have shown error in the rejection of these claims.

V. *The § 103 rejection of claim 18 over Flake in view of Jafri.*

Claim 18 calls for a terminal access editor (TAE) to define a selection of the CRSs for the client to be stored in a database and accessed during the booking request for the client.

The Examiner relies on (col. 3, l. 65-col. 4, l. 23) of Jafri which discloses server database files related to a CRS and used to process travel requests. (Answer 42).

We have read that passage in Jafri. We do not find there a terminal access editor of the type claimed. We agree with the Appellants that “Jafri does not teach or suggest that the TAs are connected to respective CRSs but, rather, are used to connect to the CRS and generate itineraries based on a first search for flights performed via TA1. Thus, the assignment of a TA to the CRS simply includes selecting one of the flights returned from the search at TA1 in order to build second and third itineraries. Therefore, the TA of Jafri is clearly unlike the TAE of the claimed invention where the TAE is used to define a selection of CRS for the

client to be stored in a database and accessed during the travel booking request, as recited by Claim 18.” (Reply Br. 9).

The Examiner also argues that claim 18 defines the editor in intended use language, adding that “Jafri is fully capable of performing the function of the TAE claimed by appellant.” (Answer 43).

Regarding the alleged intended use language, it remains that the prior art must show a terminal access editor to establish a *prima facie* case of obviousness of the claimed subject matter over the prior art. Regarding the Examiner’s allegation that Jafri can perform the editor’s function as recited in the claim, this appears to be a matter of speculation.

We find that the Appellants have shown that the Examiner erred in rejection this claim.

VI. The §103 rejection of claims 35, 37, and 39 over Flake in view of Jafri.

The Appellants argue claims 35, 37, and 39 as a group (see *supra*). We select claim 35 as the representative claim for this group and the remaining claims 37 and 39 stand or fall with claim 35. 37 C.F.R. § 41.37(c)(1)(vii) (2007).

Claim 35 reads as follows:

35. The method of claim 1, wherein the information associated with each CRS for a respective booked travel item segment includes at least one of a name of the CRS and a CRS locator.

The issue is whether “the information … [that] includes at least one name” is non-functional descriptive material and thus not patentably consequential.

For reasons already discussed (see *supra* with respect to claim 1), we are of the view that information *associated* with a segment that is entered in a database is nonfunctional descriptive material. This is even more so here with respect to claim 35 where the information includes a “name.”

The Appellants have not shown error in the rejection.

CONCLUSIONS OF LAW

The Appellants have failed to show that the Examiner erred in rejecting claims 1, 2, 5-14, 16-17, 19-25, and 28-43.

The Appellants have shown that the Examiner erred in rejecting claim 18 as unpatentable over Flake and Jafri.

DECISION

The Examiner’s rejection of claims 1, 2, 5-14, 16-25, and 28-43 is affirmed in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2004).

AFFIRMED-IN-PART

ALSTON & BIRD LLP
BANK OF AMERICA PLAZA
101 SOUTH TRYON STREET, SUITE 4000
CHARLOTTE, NC 28280-4000